

CLAIM AMENDMENTS

1-13 (Canceled)

14. (Previously presented)

An active ray curable ink jet solventless ink comprising:

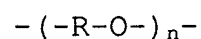
a photo-initiator,

a bifunctional or higher acrylate compound having a structure expressed by general formula (1) in an amount of less than 80% by mass,

a trifunctional or higher acrylate compound in an amount of less than 10% by mass, and

at least one species of tertiary amine compound;

wherein the general formula (1) is



where, R represents an alkyl group, and n represents an integer of 1 or larger.

15. (Previously presented)

The ink of Claim 14, further comprising: a monofunctional acrylate compound in an amount of 65% by mass or more.

16. (Previously presented)

The ink of Claim 14, wherein the ink has an ink viscosity of 35 to 70 mPa·s at 30°C.

17. (Previously presented)

An image forming method for forming an image on a recording material, comprising:

ejecting ink droplets of the active ray curable ink jet solventless ink of Claim 14 through an ink jet recording head, and

irradiating the ink with an active ray within 0.001 to 2.0 seconds after the ink droplets reach the recording material.

18. (Previously presented)

An image forming method for forming an image on a recording material, comprising:

ejecting ink droplets of the active ray curable ink jet solventless ink of Claim 14 through an ink jet recording head, and

irradiating the ink with an active ray after the ink droplets reach the recording material;

wherein the total thickness of ink film obtained after the ink droplets are cured by irradiating the ink droplets with the active ray, measures 2 to 20 μm .

19. (Previously presented)

An image forming method for forming an image on a recording material, comprising:

ejecting ink droplets of the active ray curable ink jet solventless ink of Claim 14 through an ink jet recording head,

wherein each ink droplet ejected from the nozzles of the ink jet recording head, amounts to 1 to 15 pl.

20. (Previously presented)

An ink jet recording apparatus used for the image forming method of Claim 17, wherein total power consumption of a light source for irradiating the ink with the active ray, amounts to less than 1 kw·hr.

21. (Previously presented)

An ink jet recording apparatus used for the image forming method of Claim 18, wherein total power consumption of a light source for irradiating the ink with the active ray, amounts to less than 1 kw·hr.

22. (Previously presented)

An ink jet recording apparatus used for the image forming method of Claim 19, wherein total power consumption of a light source for irradiating the ink with the active ray, amounts to less than 1 kw·hr.

23. (Previously presented)

An active ray curable ink jet solventless ink comprising:

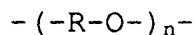
a photo-initiator,

a bifunctional or higher acrylate compound having a structure expressed by general formula (1) in an amount of less than 80% by mass,

a trifunctional or higher acrylate compound in an amount of less than 10% by mass, and

at least one species of photo-polymerizable tertiary amine monomer;

wherein the general formula (1) is



where, R represents an alkyl group, and n represents an integer of 1 or larger.

24. (Previously presented)

The ink of Claim 23, further comprising: a monofunctional acrylate compound in an amount of 65% by mass or more.

25. (Previously presented)

The ink of Claim 23, wherein the ink has an ink viscosity of 35 to 70 mPa·s at 30°C.

26. (Previously presented)

An image forming method for forming an image on a recording material, comprising:

ejecting ink droplets of the active ray curable ink jet solventless ink of Claim 23 through an ink jet recording head, and

irradiating the ink with an active ray within 0.001 to 2.0 seconds after the ink droplets reach the recording material.

27. (Previously presented)

An image forming method for forming an image on a recording material, comprising:

ejecting ink droplets of the active ray curable ink jet solventless ink of Claim 23 through an ink jet recording head, and

irradiating the ink with an active ray after the ink droplets reach the recording material;

wherein the total thickness of ink film obtained after the ink droplets are cured by irradiating the ink droplets with the active ray, measures 2 to 20 μm .

28. (Previously presented)

An image forming method for forming an image on a recording material, comprising:

ejecting ink droplets of the active ray curable ink jet solventless ink of Claim 23 through an ink jet recording head,

wherein each ink droplet ejected from the nozzles of the ink jet recording head, amounts to 1 to 15 pl.

29. (Previously presented)

An ink jet recording apparatus used for the image forming method of Claim 26, wherein total power consumption of a light source for irradiating the ink with the active ray, amounts to less than 1 kw·hr.

30. (Previously presented)

An ink jet recording apparatus used for the image forming method of Claim 27, wherein total power consumption of a light source for irradiating the ink with the active ray, amounts to less than 1 kw·hr.

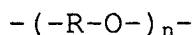
31. (Previously presented)

An ink jet recording apparatus used for the image forming method of Claim 28, wherein total power consumption of a light source for irradiating the ink with the active ray, amounts to less than 1 kw·hr.

32. (Previously presented)

An active ray curable ink jet solventless ink comprising: a photo-initiator, a bifunctional or higher acrylate compound having a structure expressed by general formula (1) in an amount of less than 35% by mass, a monofunctional acrylate compound in an amount of 65% by mass or more, and at least one species of tertiary amine compound:

wherein the general formula (1) is



where, R represents an alkyl group, and n represents an integer of 1 or larger.

33. (Previously presented)

The ink of Claim 32, further comprising: a trifunctional or higher acrylate compound in an amount of less than 10% by mass.

34. (Currently amended)

An active ray curable ink jet solventless ink comprising:

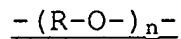
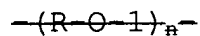
a photo-initiator,

a bifunctional or higher acrylate compound having a structure expressed by general formula (1) in an amount of less than 35% by mass,

a monofunctional acrylate compound in an amount of 65% by mass or more, and

at least one species of photo-polymerizable tertiary amine monomer;

wherein the general formula (1) is



where, R represents an alkyl group, and n represents an integer of 1 or larger.

35. (Previously presented)

The ink of Claim 34, further comprising: a trifunctional or higher acrylate compound in an amount of less than 10% by mass.